



Dart Hawkesbury  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

**RBH9928-1-1**  
**Job Sheet 168616**



Part No: RBH9928-1-1

Job Qty: 4 ea

Part Name: Gage



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/20/17

Job Tracking No:

Due Date: 11/30/17

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG RBH9928-1 Rev 10 U/R IPP Rev A 17.11.13 New issue DP Verify DD/IPP Rev B 17.11.20 DWG REV A  
DP Verify DD

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off    |
|-------|--------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|-------------|
|       |                    |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |             |
| 90    | Start up Operation | 4 Ea  |            | 11/29/17 | 0.00      | 0.00    | Start Up Machining    |           | mk 18/01/20 |
| 110   | Mori Seiki         | 4 pcs |            | 11/30/17 | 0.00      | 4.00    | MORI NV5000-2         |           | mk 18/01/20 |
| 120   | QC                 | 4 pcs |            | 11/30/17 | 0.00      | 0.00    | QC2                   |           | mk 18/01/21 |
| 130   | QC                 | 4 pcs |            | 11/30/17 | 0.00      | 0.00    | QC8                   |           |             |
| 140   | Packaging          | 4 pcs |            | 11/30/17 | 0.00      | 0.00    | Packaging3 6A         |           | AT 18/01/22 |
| 150   | QC21-SA            | 4 Ea  |            | 11/30/17 | 0.00      | 0.00    | QC21                  |           |             |

Part Op 110 - 1-Machine as per folio FB 675 FOLIO REV: \_\_\_\_\_ DWG REV: \_\_\_\_\_ 2-Deburr \*\*\*PVC  
Descriptions: used is grey. Need engineering sign off\*\*\*

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated | Std Qty |
|-----------------------|----------------|----------|-----------|-----------|---------|
| 90-Start up Operation | 8740K75        | 4        | 0         | 0         | 0       |

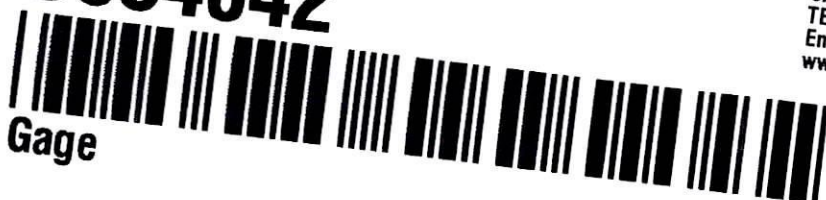
### Part Specifications

Specifications could not be found.

5015404 → 5034040

Plex 11/20/17 10:03 AM Dart.lajeunesse.marie

**DART**  
AEROSPACE  
**S034042**



Gage

**Dart Aerospace Ltd.**  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL.: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

**PART NO:** RBH9928-1-1  
**Original Serial #:** S034042  
**Revision:**  
**Operation:**  
**Change No:**

**Start up Operation** 01/21/18  
Job No: 168616

|                                       |  |                                 |
|---------------------------------------|--|---------------------------------|
| <b>DART AEROSPACE LTD</b>             |  | <b>Work Order:</b> 168 BR6      |
| <b>Description:</b> GAGE              |  | <b>Part Number:</b> RBH9928-1-1 |
| <b>Inspection Dwg:</b> RBH9928 Rev: A |  | <b>Page 1 of 1</b>              |

### INSPECTION SHEET

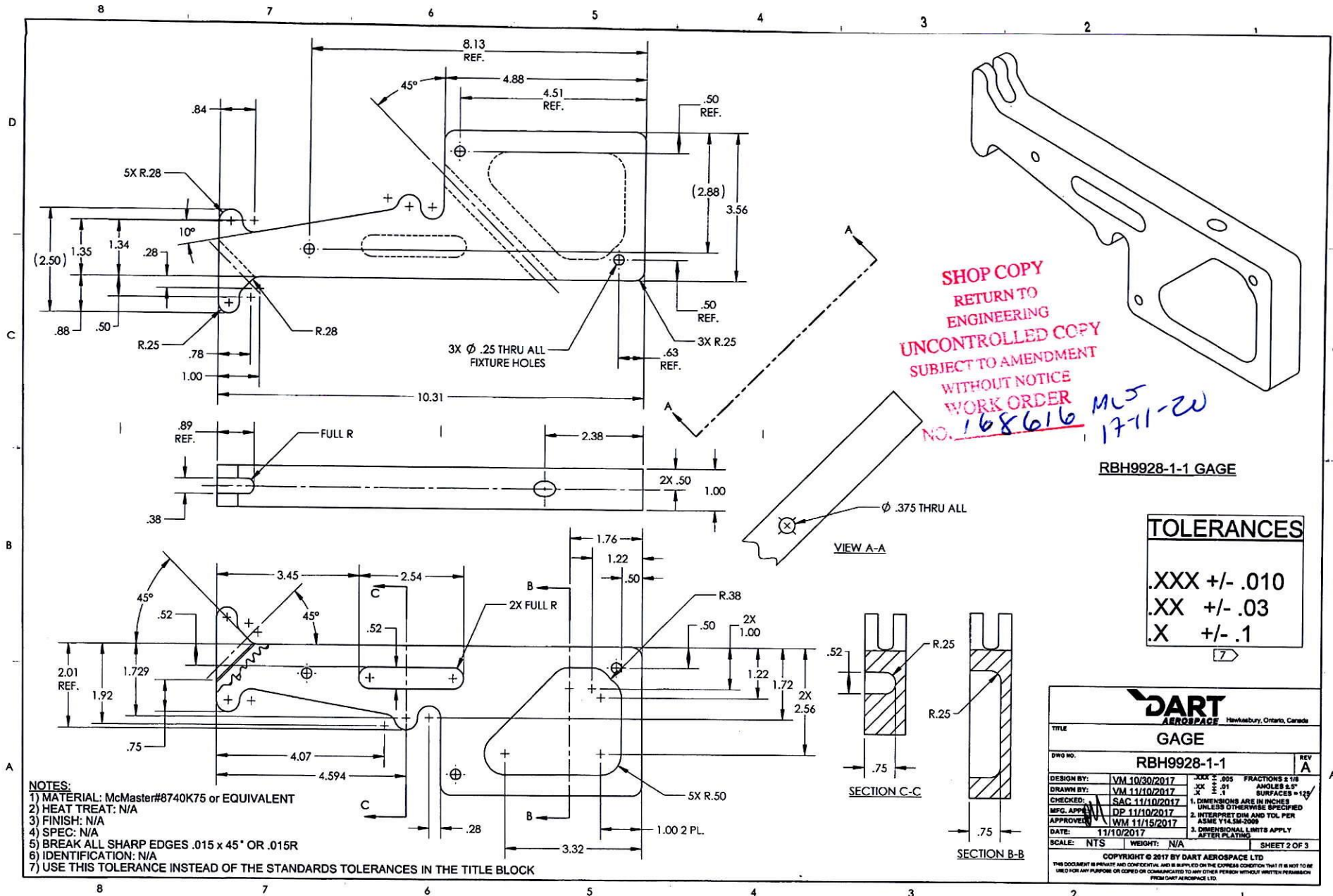
| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------|-----------|------------------|--------|--------|----------------------|----------|
| 4.88              | ± 0.30    | 4.875            | —      |        | Vern 90-08           |          |
| 3.56              | ± 0.30    | 3.560            | —      |        | "                    |          |
| R.25              | ± 0.30    | R.250            | —      |        | R-G                  |          |
| 10.31             | ± 0.30    | 10.312           | —      |        | Vern 90-08           |          |
| R.28              | ± 0.30    | R.280            | —      |        | R-G                  |          |
| R.25              | ± 0.30    | R.250            | —      |        | "                    |          |
| .88               | ± 0.30    | .880             | —      |        | Vern 90-08           |          |
| 2.56              | ± 0.30    | 2.562            | —      |        | "                    |          |
| 10°               | ± 1/2°    | 10°              | —      |        | C-Square             |          |
| R.28              | ± 0.30    | R.28             | —      |        | R-G                  |          |
| 45°               | ± 1/2°    | 45°              | —      |        | C-Square             |          |
| 2.38              | ± 0.30    | 2.395            | —      |        | Vern 90-08           |          |
| .50               | ± 0.30    | .500             | —      |        | "                    |          |
| 1.00              | ± 0.30    | 1.007            | —      |        | "                    |          |
| 16.375            | ± 0.65    | 16.376           | —      |        | "                    |          |
| 3.45              | ± 0.30    | 3.450            | —      |        | "                    |          |
| 2.54              | ± 0.30    | 2.540            | —      |        | "                    |          |
| .28               | ± 0.30    | .280             | —      |        | "                    |          |
| .75               | ± 0.30    | .740             | —      |        | "                    |          |
| 2.00              | ± 0.30    | 2.010            | —      |        | "                    |          |
| .52               | ± 0.30    | .520             | —      |        | "                    |          |
| 45°               | ± 1/2°    | 45°              | —      |        | "                    |          |
| .52               | ± 0.30    | .520             | —      |        | "                    |          |
| .75               | ± 0.30    | .730             | —      |        | "                    |          |
| .38               | ± 0.30    | .376             | —      |        | "                    |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |
|                   |           |                  |        |        |                      |          |

|                         |                                |                      |
|-------------------------|--------------------------------|----------------------|
| <b>Measured by:</b> JAL | <b>Checked by:</b> [Signature] | <b>QC Inspector:</b> |
| <b>Date:</b> 18/01/21   | <b>Date:</b> 18-01-27          | <b>Date:</b>         |

|                                                |              |
|------------------------------------------------|--------------|
| <b>Engineering Approval:</b><br>(If necessary) | <b>Date:</b> |
|------------------------------------------------|--------------|

| Rev | Date     | Change    | Revised by | Approved |
|-----|----------|-----------|------------|----------|
| B   | 14.07.31 | New Issue | KJ         |          |





SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 168616 MJS  
17-11-20

RBH9928-1-1 GAGE

| TOLERANCES |          |
|------------|----------|
| XXX        | +/- .010 |
| XX         | +/- .03  |
| X          | +/- .1   |

- NOTES:
- 1) MATERIAL: McMaster#8740K75 or EQUIVALENT
  - 2) HEAT TREAT: N/A
  - 3) FINISH: N/A
  - 4) SPEC: N/A
  - 5) BREAK ALL SHARP EDGES .015 x 45° OR .015R
  - 6) IDENTIFICATION: N/A
  - 7) USE THIS TOLERANCE INSTEAD OF THE STANDARDS TOLERANCES IN THE TITLE BLOCK

|                                                                                                                                                                                                                                                               |                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| <b>DART AEROSPACE</b><br>Newbury, Ontario, Canada                                                                                                                                                                                                             |                                                         |
| TITLE<br><b>GAGE</b>                                                                                                                                                                                                                                          |                                                         |
| DWO NO.<br><b>RBH9928-1-1</b>                                                                                                                                                                                                                                 |                                                         |
| REV<br><b>A</b>                                                                                                                                                                                                                                               |                                                         |
| DESIGN BY:<br><b>VM 10/30/2017</b>                                                                                                                                                                                                                            | 300K ± .005 FRACTIONS & 1/8 ANGLES & 1/2 SURFACES = 125 |
| DRAWN BY:<br><b>VM 11/10/2017</b>                                                                                                                                                                                                                             | XX ± .01                                                |
| CHECKED BY:<br><b>SAC 11/10/2017</b>                                                                                                                                                                                                                          | 1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED  |
| MFG. APPR:<br><b>DP 11/10/2017</b>                                                                                                                                                                                                                            | 2. INTERPRET DIM AND TOL PER ASME Y14.5M-2009           |
| APPROVED BY:<br><b>WM 11/15/2017</b>                                                                                                                                                                                                                          | 3. DIMENSIONAL LIMITS APPLY AFTER PLATING               |
| DATE:<br><b>11/10/2017</b>                                                                                                                                                                                                                                    |                                                         |
| SCALE: NTS                                                                                                                                                                                                                                                    | WEIGHT: N/A                                             |
| SHEET 2 OF 3                                                                                                                                                                                                                                                  |                                                         |
| COPYRIGHT © 2017 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD |                                                         |

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |                                                                                                                   |  |  |
|--------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------------------|--|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |  | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |  | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |  |  |                                                                                                                   |  |  |
| Date :                                                       |  | Step #:                                                                                                                                                                            |  | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  | <b>MRB (QSI042) Approval</b><br><br><div style="border: 1px solid black; height: 150px; margin-top: 10px;"></div> |  |  |
| Description Work Order Deviation                             |  |                                                                                                                                                                                    |  | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |                                                                                                                   |  |  |
|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |                                                                                                                   |  |  |
|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |                                                                                                                   |  |  |
|                                                              |  |                                                                                                                                                                                    |  | <b>Completed By</b><br><br><div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |                                                                                                                   |  |  |
|                                                              |  |                                                                                                                                                                                    |  | <b>Lead hand / Supervisor Approval Verification</b><br><br><div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |                                                                                                                   |  |  |
|                                                              |  |                                                                                                                                                                                    |  | <b>QC / QA Coordinator Approval</b><br><br><div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |                                                                                                                   |  |  |

| Root Cause                                  |                          |                       |                          | FAULT CATEGORY                                                                                    |                          |                                   |                          |
|---------------------------------------------|--------------------------|-----------------------|--------------------------|---------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------|--------------------------|
| Environment <input type="checkbox"/>        | <input type="checkbox"/> | No Re-verification    | <input type="checkbox"/> | Pressure/Forced                                                                                   | <input type="checkbox"/> | Temperature/Cure                  | <input type="checkbox"/> |
| Design <input type="checkbox"/>             | <input type="checkbox"/> | Operator              | <input type="checkbox"/> | Bending                                                                                           | <input type="checkbox"/> | Set-up                            | <input type="checkbox"/> |
| Doc/Data <input type="checkbox"/>           | <input type="checkbox"/> | Offset/Setup          | <input type="checkbox"/> | Centre Not Concentric                                                                             | <input type="checkbox"/> | BOM/Route                         | <input type="checkbox"/> |
| Equip/Tooling <input type="checkbox"/>      | <input type="checkbox"/> | Supplier              | <input type="checkbox"/> | Cracks                                                                                            | <input type="checkbox"/> | Broken/Damage/Defect              | <input type="checkbox"/> |
| Handling/Pre <input type="checkbox"/>       | <input type="checkbox"/> | Training              | <input type="checkbox"/> | Crimp/Kink/Ripple/Wave                                                                            | <input type="checkbox"/> | Inspection Incomplete/Unqualified | <input type="checkbox"/> |
| Material <input type="checkbox"/>           | <input type="checkbox"/> | Use for Testing       | <input type="checkbox"/> | Cuffs                                                                                             | <input type="checkbox"/> | Contamination                     | <input type="checkbox"/> |
| Internal Transport <input type="checkbox"/> | <input type="checkbox"/> | Poor Information      | <input type="checkbox"/> | Crushing                                                                                          | <input type="checkbox"/> | Countersink                       | <input type="checkbox"/> |
| Tribal Knowledge <input type="checkbox"/>   | <input type="checkbox"/> | Rushing               | <input type="checkbox"/> | Heat Treat                                                                                        | <input type="checkbox"/> | Cut Too Short                     | <input type="checkbox"/> |
| LOA <input type="checkbox"/>                | <input type="checkbox"/> | Product Improvement   | <input type="checkbox"/> | Wave/Twist in Tube                                                                                | <input type="checkbox"/> | Instructions Incomplete/Unclear   | <input type="checkbox"/> |
| Substation <input type="checkbox"/>         | <input type="checkbox"/> | Process Improvement   | <input type="checkbox"/> | Marks/Chatter                                                                                     | <input type="checkbox"/> | Drill Holes                       | <input type="checkbox"/> |
| Past Expiry Date <input type="checkbox"/>   | <input type="checkbox"/> | Manufacturing Process | <input type="checkbox"/> | <b>OTHER :</b><br><br><div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div> |                          |                                   |                          |
| Misidentified <input type="checkbox"/>      | <input type="checkbox"/> | Past Due              | <input type="checkbox"/> |                                                                                                   |                          |                                   |                          |

| Operation Number                                                                  | Operation  | Serial Number | Job    | Quantity | Weight | Original Serial Number | Location           | Container | Status | Added     | Special Comments | Label                                                                               | Supplier | Change No |
|-----------------------------------------------------------------------------------|------------|---------------|--------|----------|--------|------------------------|--------------------|-----------|--------|-----------|------------------|-------------------------------------------------------------------------------------|----------|-----------|
| <b>Part Number: 8740K75 Revision: PVC Bar, Type 1 Plastic, 4" wide x 1" thick</b> |            |               |        |          |        |                        |                    |           |        |           |                  |                                                                                     |          |           |
| 100                                                                               | Receive Ft | S034040       | 168616 | 0 ft     | 0      |                        | Start Up Machining |           | Stock  | 1/21/2018 | Issue Container  |  |          |           |
| <b>Operation Totals:</b>                                                          |            | 1             |        | 0        | 0      |                        |                    |           |        |           |                  |                                                                                     |          |           |
| <b>Part Totals:</b>                                                               |            | 1             |        | 0        | 0      |                        |                    |           |        |           |                  |                                                                                     |          |           |
| <b>Part Number: RBH9928-1-1 Revision: Gage</b>                                    |            |               |        |          |        |                        |                    |           |        |           |                  |                                                                                     |          |           |
| 150                                                                               | QC21-SA    | S034042       | 168616 | 4 Ea     | 0      | S034042                | GA                 | Bin       | Stock  | 1/21/2018 | Issue Container  |  |          |           |
| <b>Operation Totals:</b>                                                          |            | 1             |        | 4        | 0      |                        |                    |           |        |           |                  |                                                                                     |          |           |
| <b>Part Totals:</b>                                                               |            | 1             |        | 4        | 0      |                        |                    |           |        |           |                  |                                                                                     |          |           |
| <b>Totals:</b>                                                                    |            | 2             |        | 4        | 0      |                        |                    |           |        |           |                  |                                                                                     |          |           |



DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                             |                                                                                                                                                                                    |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                           |                                 |                                   |                                              |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                                                            |                                             |                                            |                                   |                                          |                                |                                        |                                          |                                     |                                             |                                           |                                   |                                      |                                  |                                  |                                           |                                  |                                     |                                        |                                     |                                 |                              |                                              |                                             |                                                          |                                       |                                  |                                     |                                              |                                        |                                      |                                                |                                           |                                           |                                                |               |  |
|--------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------|-----------------------------------|----------------------------------------------|---------------------------------|----------------------------------------|---------------------------------------------|-----------------------------------|---------------------------------------|------------------------------------------------|------------------------------------|--------------------------------|-----------------------------------------------|----------------------------------------|-----------------------------------|---------------------------------|-----------------------------------------------|-------------------------------|-----------------------------------------|---------------------------------------|-----------------------------------|-------------------------------------------------|------------------------------------------------------------|---------------------------------------------|--------------------------------------------|-----------------------------------|------------------------------------------|--------------------------------|----------------------------------------|------------------------------------------|-------------------------------------|---------------------------------------------|-------------------------------------------|-----------------------------------|--------------------------------------|----------------------------------|----------------------------------|-------------------------------------------|----------------------------------|-------------------------------------|----------------------------------------|-------------------------------------|---------------------------------|------------------------------|----------------------------------------------|---------------------------------------------|----------------------------------------------------------|---------------------------------------|----------------------------------|-------------------------------------|----------------------------------------------|----------------------------------------|--------------------------------------|------------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------------|---------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |                                             | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |                                           | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |                                           |                                 |                                   |                                              |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                                                            |                                             |                                            |                                   |                                          |                                |                                        |                                          |                                     |                                             |                                           |                                   |                                      |                                  |                                  |                                           |                                  |                                     |                                        |                                     |                                 |                              |                                              |                                             |                                                          |                                       |                                  |                                     |                                              |                                        |                                      |                                                |                                           |                                           |                                                |               |  |
| Date :                                                       |                                             | Step #:                                                                                                                                                                            |                                           | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                           |                                 | MRB (QSI042) Approval             |                                              |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                                                            |                                             |                                            |                                   |                                          |                                |                                        |                                          |                                     |                                             |                                           |                                   |                                      |                                  |                                  |                                           |                                  |                                     |                                        |                                     |                                 |                              |                                              |                                             |                                                          |                                       |                                  |                                     |                                              |                                        |                                      |                                                |                                           |                                           |                                                |               |  |
| Description Work Order Deviation                             |                                             |                                                                                                                                                                                    |                                           | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                           |                                 |                                   | Completed By                                 |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                                                            |                                             |                                            |                                   |                                          |                                |                                        |                                          |                                     |                                             |                                           |                                   |                                      |                                  |                                  |                                           |                                  |                                     |                                        |                                     |                                 |                              |                                              |                                             |                                                          |                                       |                                  |                                     |                                              |                                        |                                      |                                                |                                           |                                           |                                                |               |  |
|                                                              |                                             |                                                                                                                                                                                    |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                           |                                 |                                   | Lead hand / Supervisor Approval Verification |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                                                            |                                             |                                            |                                   |                                          |                                |                                        |                                          |                                     |                                             |                                           |                                   |                                      |                                  |                                  |                                           |                                  |                                     |                                        |                                     |                                 |                              |                                              |                                             |                                                          |                                       |                                  |                                     |                                              |                                        |                                      |                                                |                                           |                                           |                                                |               |  |
|                                                              |                                             |                                                                                                                                                                                    |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                           |                                 |                                   | QC / QA Coordinator Approval                 |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                                                            |                                             |                                            |                                   |                                          |                                |                                        |                                          |                                     |                                             |                                           |                                   |                                      |                                  |                                  |                                           |                                  |                                     |                                        |                                     |                                 |                              |                                              |                                             |                                                          |                                       |                                  |                                     |                                              |                                        |                                      |                                                |                                           |                                           |                                                |               |  |
|                                                              |                                             |                                                                                                                                                                                    |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                           |                                 |                                   |                                              |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                                                            |                                             |                                            |                                   |                                          |                                |                                        |                                          |                                     |                                             |                                           |                                   |                                      |                                  |                                  |                                           |                                  |                                     |                                        |                                     |                                 |                              |                                              |                                             |                                                          |                                       |                                  |                                     |                                              |                                        |                                      |                                                |                                           |                                           |                                                |               |  |
| Root Cause                                                   |                                             | FAULT CATEGORY                                                                                                                                                                     |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                           |                                 |                                   |                                              |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                                                            |                                             |                                            |                                   |                                          |                                |                                        |                                          |                                     |                                             |                                           |                                   |                                      |                                  |                                  |                                           |                                  |                                     |                                        |                                     |                                 |                              |                                              |                                             |                                                          |                                       |                                  |                                     |                                              |                                        |                                      |                                                |                                           |                                           |                                                |               |  |
| Environment <input type="checkbox"/>                         | No Re-verification <input type="checkbox"/> | Pressure/Forced <input type="checkbox"/>                                                                                                                                           | Temperature/Cure <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Positioned Wrong <input type="checkbox"/> | Design <input type="checkbox"/> | Operator <input type="checkbox"/> | Bending <input type="checkbox"/>             | Set-up <input type="checkbox"/> | Folio/Program <input type="checkbox"/> | Outside Dimensions <input type="checkbox"/> | Doc/Data <input type="checkbox"/> | Offset/Setup <input type="checkbox"/> | Centre Not Concentric <input type="checkbox"/> | BOM/Route <input type="checkbox"/> | Grain <input type="checkbox"/> | Over/Under tolerance <input type="checkbox"/> | Equip/Tooling <input type="checkbox"/> | Supplier <input type="checkbox"/> | Cracks <input type="checkbox"/> | Broken/Damage/Defect <input type="checkbox"/> | Weld <input type="checkbox"/> | Part Incorrect <input type="checkbox"/> | Handling/Pre <input type="checkbox"/> | Training <input type="checkbox"/> | Crimp/Kink/Ripple/Wave <input type="checkbox"/> | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/> | Part Lost/Missing <input type="checkbox"/> | Material <input type="checkbox"/> | Use for Testing <input type="checkbox"/> | Cuffs <input type="checkbox"/> | Contamination <input type="checkbox"/> | Out of Sequence <input type="checkbox"/> | Part Moved <input type="checkbox"/> | Internal Transport <input type="checkbox"/> | Poor Information <input type="checkbox"/> | Crushing <input type="checkbox"/> | Countersink <input type="checkbox"/> | Off-set <input type="checkbox"/> | Drawing <input type="checkbox"/> | Tribal Knowledge <input type="checkbox"/> | Rushing <input type="checkbox"/> | Heat Treat <input type="checkbox"/> | Cut Too Short <input type="checkbox"/> | Mislabeled <input type="checkbox"/> | Finish <input type="checkbox"/> | LOA <input type="checkbox"/> | Product Improvement <input type="checkbox"/> | Wave/Twist in Tube <input type="checkbox"/> | Instructions Incomplete/Unclear <input type="checkbox"/> | Fit/Function <input type="checkbox"/> | Misread <input type="checkbox"/> | Substation <input type="checkbox"/> | Process Improvement <input type="checkbox"/> | Marks/Chatter <input type="checkbox"/> | Drill Holes <input type="checkbox"/> | Misaligned/off center <input type="checkbox"/> | Turning Sequence <input type="checkbox"/> | Past Expiry Date <input type="checkbox"/> | Manufacturing Process <input type="checkbox"/> | OTHER : _____ |  |
| Misidentified <input type="checkbox"/>                       | Past Due <input type="checkbox"/>           |                                                                                                                                                                                    |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                           |                                 |                                   |                                              |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                                                            |                                             |                                            |                                   |                                          |                                |                                        |                                          |                                     |                                             |                                           |                                   |                                      |                                  |                                  |                                           |                                  |                                     |                                        |                                     |                                 |                              |                                              |                                             |                                                          |                                       |                                  |                                     |                                              |                                        |                                      |                                                |                                           |                                           |                                                |               |  |